



# SAN DIEGO COUNTY TUBERCULOSIS (TB) ELIMINATION INITIATIVE

---

*Dr. Ankita Kadakia, M.D.  
Chief/Medical Director, TB Control and Refugee Health*

*Health Services Advisory Board Meeting*

*December 1, 2020*



# TUBERCULOSIS



- Tuberculosis (TB) is a communicable disease caused by a bacterium called *Mycobacterium tuberculosis*.
- TB bacteria usually attack the lungs but can attack any part of the body such as the kidney, spine, and brain.
- TB bacteria spreads through the air from one person to another when a person with TB disease of the lungs coughs, speaks, or sings.
- Active TB has a high associated mortality of approximately 10%.
- Those who have been infected, but are not sick, have latent tuberculosis infection (LTBI). Persons with LTBI can become sick with active TB in the future if not treated.
- In 2019, the U.S. had 8,920 active TB cases, and 32% of those cases were in California.

# TUBERCULOSIS IN SAN DIEGO COUNTY



## EPIDEMIOLOGY



In 2019 San Diego County reported 265 new active TB cases. The County's annual TB incidence is 7.9 cases per 100,000 persons, which is higher than the California rate of 5.3, and more than twice the national rate of 2.7.

72% of San Diego County active TB cases occurred in persons who were born outside the U.S. The most common medical risk factors are diabetes and HIV.

An estimated 80% of active TB cases are due to progression of LTBI to active TB. Approximately 175,000 San Diegans have LTBI, which can progress to active TB without treatment.

# GLOBAL, NATIONAL AND STATE FOCUS ON TB ELIMINATION



## Global

In 2014, the World Health Organization (WHO) launched the *End TB Strategy* with the goal of ending the global TB epidemic.

## National

The Centers for Disease Control and Prevention's (CDC) Division of TB Elimination *Strategic Plan for 2016-2020* provides a national strategy for TB elimination

## State

In California, the TB Control Branch of the California Department of Public Health outlined a 5-year action plan (2016-2020) for TB Elimination, created by a collaboration of stakeholders.



**San Diego County is well-positioned to leverage global, national, and statewide initiatives to work toward TB elimination through a strong public-private partnership:**

- ➔ Multi-sector partnerships and binational collaboration uniquely position us for this effort
- ➔ Increased adoption of blood tests (interferon gamma release assays) to diagnose LTBI reduces false positives
- ➔ New short-course LTBI treatment regimens now recommended by CDC increase the likelihood of treatment being completed by patients.

# SAN DIEGO COUNTY TB ELIMINATION TARGET



**CURRENT  
INCIDENCE**

**79 active TB  
cases per  
million  
population**



**ELIMINATION  
TARGET**

**< 1 active TB  
case per  
million  
population by  
2040\***

*\*Note: This target requires modeling and feasibility assessment. Achievable short-term targets will be established during the implementation planning phase of the initiative.*

# COMMITTEE STRUCTURE



# COLLABORATIVE APPROACH



## TBEI committees include representatives from over 30 entities, including 35 non-county participants:

- California Department of Public Health, Tuberculosis Control Branch
- California State University San Marcos, Student Health Services
- Centers for Disease Control & Prevention, Division of Global Migration & Quarantine
- Champions for Health
- Family Health Centers of San Diego
- Health Center Partners of Southern California
- Healthy Campus Consultants
- Healthy San Diego
- Hospital Association of San Diego and Imperial Counties
- Indian Health Council
- Kaiser Permanente
- La Maestra Community Health Centers
- Neighborhood Healthcare
- Mesa College, Student Health Services
- Mira Costa College, Student Health Services
- Peak Health Group
- Point Loma University, Student Health Services
- Samahan Health
- San Diego Community College District
- San Diego County Medical Society
- San Diego County Office of Education
- San Diego County Sheriff's Office
- San Diego State University, Student Health Services
- San Diego Unified School District
- San Ysidro Health Center
- Sharp Healthcare
- Sun Health Medical Clinic
- United Healthcare
- United States Navy, Balboa Hospital
- University California San Diego, Epidemiology
- University California San Diego, Global Health
- University of California San Diego, Student Health Services
- University of San Diego, Hahn School of Nursing
- Vista Community Clinic



# RECOMMENDATIONS



**1**

**Improve LTBI care cascade outcomes**

**2**

**Promote awareness of LTBI as a major public health concern which is preventable and curable**

**3**

**Develop a LTBI surveillance system to describe the burden of LTBI and monitor improvement of the LTBI cascade of care**

**4**

**Implement TB screening in educational systems**

**5**

**Improve access to treatment for LTBI and active TB**

**6**

**Secure sufficient resources for implementing TBEI strategies**



## 1) Improve LTBI care cascade outcomes

- The LTBI Care Cascade shows the proportions of high-risk populations that have been tested and diagnosed with LTBI as well as the proportions starting and completing LTBI treatment. It assists in identification of gaps in the care cascade to guide further study and development of interventions to successfully close the gaps.
- Given 80% of active TB cases arise from untreated LTBI, LTBI care cascade outcomes can be improved by finding and engaging persons and populations at risk for LTBI, applying focused and effective strategies for TB testing, and optimizing LTBI treatment.
- Providing support and technical assistance for community providers to develop LTBI care cascades within their organizations and use the cascades for self-evaluation of care performance can enhance patient outcomes leading to fewer cases of active TB.



## 2) Promote awareness of LTBI as a major public health concern which is preventable and curable

- By creating an effective communication campaign to encourage and promote testing and treatment of LTBI, individuals can become aware that LTBI can be diagnosed and treated easily, and treatment of LTBI prevents future development of active TB.
- Effective communication strategies which target high risk populations and healthcare providers who care for these populations can help to address health disparities in TB.
- Promotion of testing and treatment of LTBI with the use of patient education materials in a broad array of languages allows for improved communication between at risk patients and their healthcare providers.



## 3) Develop a LTBI surveillance system to describe the burden of LTBI and monitor improvement of the LTBI cascade of care

- Developing a surveillance system for LTBI diagnosis and treatment would help to capture metrics along the LTBI care cascade.
- Using the LTBI surveillance system, standard reports would assist in identifying actionable gaps in the LTBI care cascade and measuring the effectiveness of interventions designed to address gaps.



## 4) Implement TB screening in educational systems

- Implementing TB screening in educational systems like high schools and colleges can lead to early detection and prevention of active TB and detection of LTBI in younger populations.
- By improving TB screening, more thorough contact tracing for students with active TB can be conducted. Screening all college students for TB risk factors with TB screening questionnaires, providing education regarding need for testing, and enhancing communication of local resources for treatment can decrease LTBI and active TB cases.
- Developing web-based tools and resources for student populations can allow easier and more timely access to screening, testing and LTBI treatment.



## 5) Improve access to treatment for LTBI and active TB

- Working with pharmacies, clinics, and community healthcare providers to lower cost of treatment options for LTBI including shorter duration options.
- Increasing communications for uninsured patients and those who do not have alternative access to care for treatment at county facilities where medication for TB is provided at no cost to the patient.
- Creating a system of low to no cost for clinics who serve vulnerable patient populations would assist in treatment of active and latent TB and decrease overall cases.



## 6) Secure sufficient resources for implementing TBEI strategies

- Elimination of TB via public-private partnership with participation from community clinics and healthcare providers and outreach to high risk communities requires increased funding streams.
- Sufficient funding will broaden and support TB elimination efforts countywide, especially for those patients who are from vulnerable populations, including the homeless and recent immigrants.

# NEXT STEPS



- We are returning to the Board of Supervisors on November 17, 2020 to submit the proposed **TBEI recommendations**.
- If approved, the next phase of work is the development of a detailed **TBEI implementation plan**.



# QUESTIONS/FEEDBACK



# CONTACT



**ANKITA KADAKIA, M.D.,**

*Chief/Medical Director, Tuberculosis Control and Refugee Health*

(619) 692-8613

[Ankita.Kadokia@sdcounty.ca.gov](mailto:Ankita.Kadokia@sdcounty.ca.gov)

# THANK YOU TO PARTNERS



A huge thank you to all committee members and community stakeholders for their partnership and collaboration in planning to eliminate TB in San Diego County!